



UNITED STATES PATENT AND TRADEMARK OFFICE

TAL

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,619	10/20/2003	Edward F. Pleva	87304.1940	2588

7590 05/19/2005

BAKER & HOSTETLER LLP
Washington Square, Suite 1100
1050 Connecticut Avenue, N.W.
WASHINGTON, DC 20036

EXAMINER

ALI, MOHAMMAD M

ART UNIT PAPER NUMBER

3744

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Sp

Office Action Summary	Application No.	Applicant(s)	
	10/687,619	PLEVA, EDWARD F.	
	Examiner	Art Unit	
	Mohammad Ali	3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8, 12 and 14-26 is/are rejected.
- 7) ☐ Claim(s) 6, 7, 9-11 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "pipe line divider" for claim 3 and 4 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 8, 12, 14-19 and 21-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Lewis et al., (5,333,460). Lewi et al., disclose a cryogenic system comprising an enclosure 20 containing at one coolant compressor 16 for a housed cryogenic apparatus 10, a cabinet 12 coupled to the apparatus 10 housing; an air conditioner 10 affixed to the cabinet 12; and plurality of coolant lines including guides positioned within the cabinet 12, means for enclosing a thermally insulated volume 12, means 50 for removing heat from the enclosing means 12. (The examiner considering the wall of heat exchanger 22 is the support of the coolant lines, the same wall acts as a pipeline divider and coolant line guide.) See Fig. 1, 2 and 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 3744

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lewis et al., in view of Linhardt (3,799,249). Lewis et al., disclose the invention substantially as claimed as stated above. However, Lewis et al., do not disclose water vapor. Linhardt teaches the use of water vapor by spraying water into the hot exhaust gas in a cryogenic system for the purpose of absorbing heat from the hot gas. See the abstract and column 3, lines 16-26. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cryogenic system of Lewis et al., in view of Linhardt such that water vapor could be provided in order to absorb heat from the gas/air.

Allowable Subject Matter

Claims 6-7, 9-11 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 04/19/05 have been fully considered but they are not persuasive. The Applicant argued, "Lewis et al. employs a first self-supporting cryogenic feed line 28 terminating within the apparatus in a cold plate 30 (column 2, line 66- column 3, line 2; see figs. 2, 3, and 4 for views of the feed line). The routing and

management of the second feed line 26 proximal to the first feed line 28 are not made evident in the figures or in the disclosure of Lewis et al.

Lewis et al. further emphasizes providing a self-contained assembly (col. 1, 11. 52-56), including a cold head 30 to which the objects to be chilled are attached (col. 3, 11. 50-55), wherein the objects to be chilled are components of another system, housed in a cryostat and affixed to the cryocooler enclosure of Lewis et al. (col. 4, 11. 18-32).

However, Lewis et al. does not teach or suggest providing as a part of the cryocooler a cabinet configured for deployment in outdoor environments, nor a cabinet including an air conditioner, as recited in claim 1. The Examiner disagrees. It is not clear why the routing of feed line 26 and 28 are not made evident. Feed line 28 connects the fluid pump 24 and the cold head 30 (See Fig. 2 and 3), the other feed line 26 connects pump 24 and the heat exchanger 22. The disclosure, "deployment in outdoor environments" is a functional recitation for placing a cabinet and has no patentable weight. On the other hand there is no harm to put the cabinet 12 in out door environment. Therefore rejections are proper.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (571) 272-4806. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Esquivel Denise can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-4834

Art Unit: 3744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mohammad M. Ali
May 13, 2005